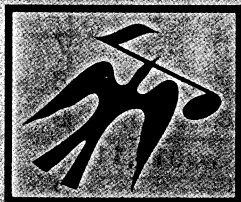


SERVICE MANUAL

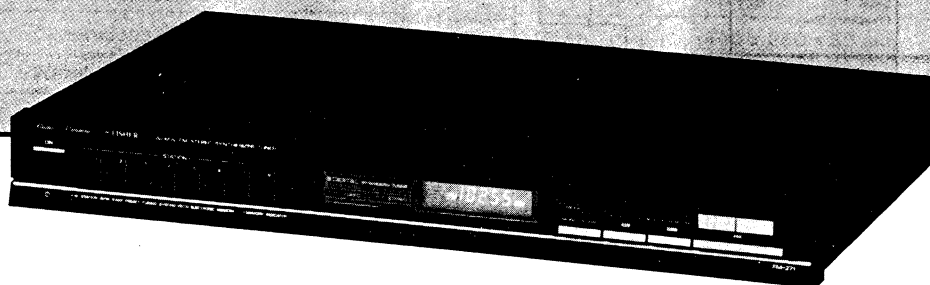


FISHER

FM-271

FM-1271

**LW/MW/FM Stereo
Synthesizer Tuner
(EUROPE)**



**FM-271
125 957 40
FM-1271
125 957 42**

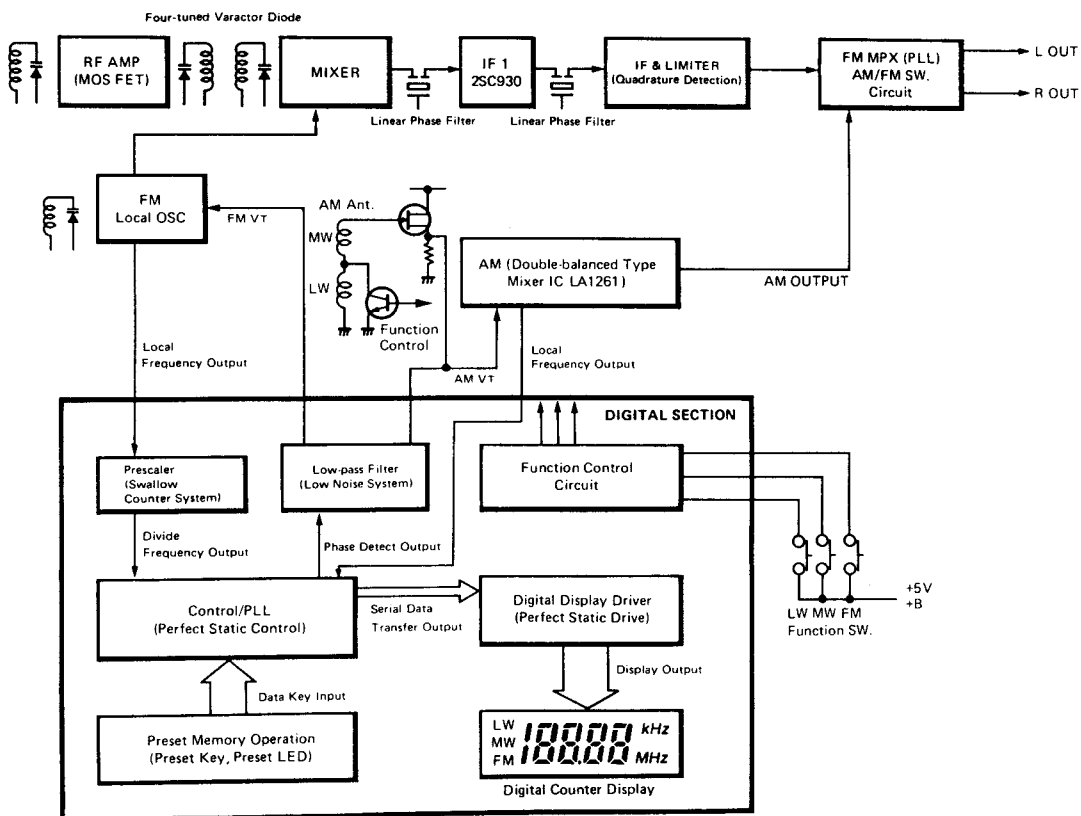
MC-Service

WM-14256

CONTENTS

Functional Block Diagram	2
Specifications	3
Cabinet & Chassis Exploded View	4
Parts List	5
Tuner P.C.Board Layout Alignment Points	6
Recommended Test Equipments	7
FM Tuner Alignment	7
AM Tuner Alignment	8
Trouble Shooting Guide	9
IC Signal Flow	10,11,12
Semiconductor Lead Identification	13
P.C.B. Assy Parts List	14,15,16
Printed Circuit Board (Bottom View)	17,18,19,20
Schematic Diagram	21,22
Front End Schematic Diagram	23

FUNCTIONAL BLOCK DIAGRAM

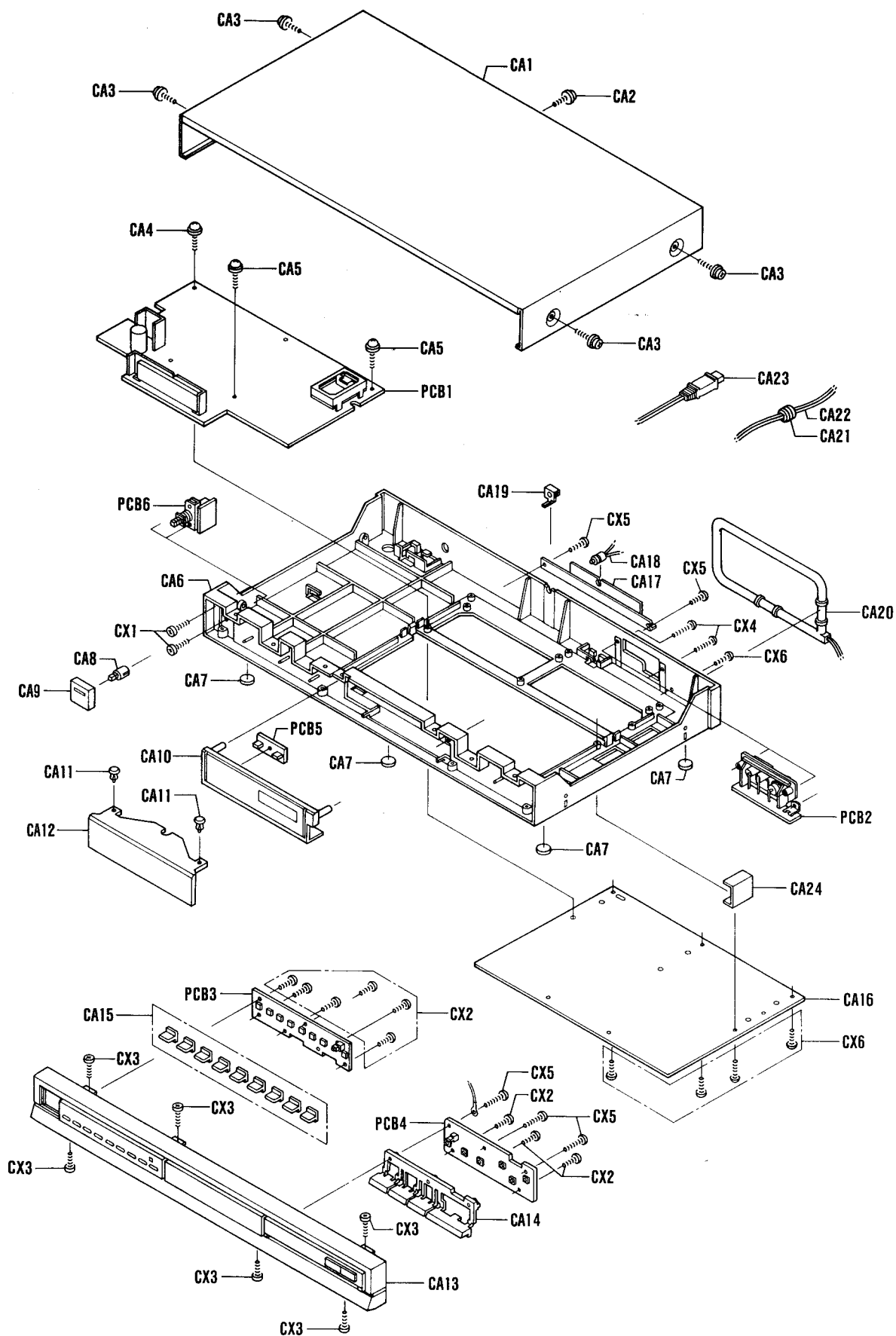


SPECIFICATIONS

LW/MW/FM STEREO TUNER	FM-271 / 1271	
FM SECTION		
26 dB Quieting Sensitivity Mono	12 μ V/13.17dBf	
46 dB Quieting Sensitivity Mono	7.0 μ V/28.15dBf	
Signal-to-Noise Ratio Mono	65 dB	
Stereo	60 dB	
Capture Ratio	1.5 dB	
Alt. Channel Selectivity (± 300 kHz)	55 dB	
Image Response Ratio	60 dB	
Spurious Response Ratio	70 dB	
IF Response Ratio	80 dB	
AM Suppression Ratio	50 dB	
Total Harmonic Distortion at 50 dB Quieting Mono	0.4 %	
Stereo	0.5 %	
Total Harmonic Distortion at 65 dBf Mono (100 Hz/1 kHz/6 kHz)	0.2/0.2/0.5 %	
Stereo (100 Hz/1 kHz/6 kHz)	0.3/0.3/0.7 %	
Stereo Separation (100 Hz/1 kHz/10 kHz)	40/40/25 dB	
Sub-Carrier Rejection (19 kHz/38 kHz)	30/50 dB	
Audio Frequency Response (20 Hz – 15 kHz)	+0.1 / –2.5 dB	
AM SECTION	MW	LW
Usable Sensitivity	350 μ V/m	1000 μ V/m
Selectivity (± 10 kHz)	45 dB	50 dB
Signal-to-Noise Ratio	55 dB	50 dB
Image Response Ratio	40 dB	40 dB
IF Response Ratio	60 dB	60 dB
GENERAL		
Power Requirements (50 Hz)	19 V AC	
Power Consumption	10 Watts	
Dimensions (W x D x H)	440 x 280 x 58 mm	
Weight (approx.)	2 kg	

Because its products are subject to continuous improvement, Fisher Corporation reserves the right to modify product designs and specifications without notice and without incurring any obligation.

CABINET & CHASSIS EXPLODED VIEW



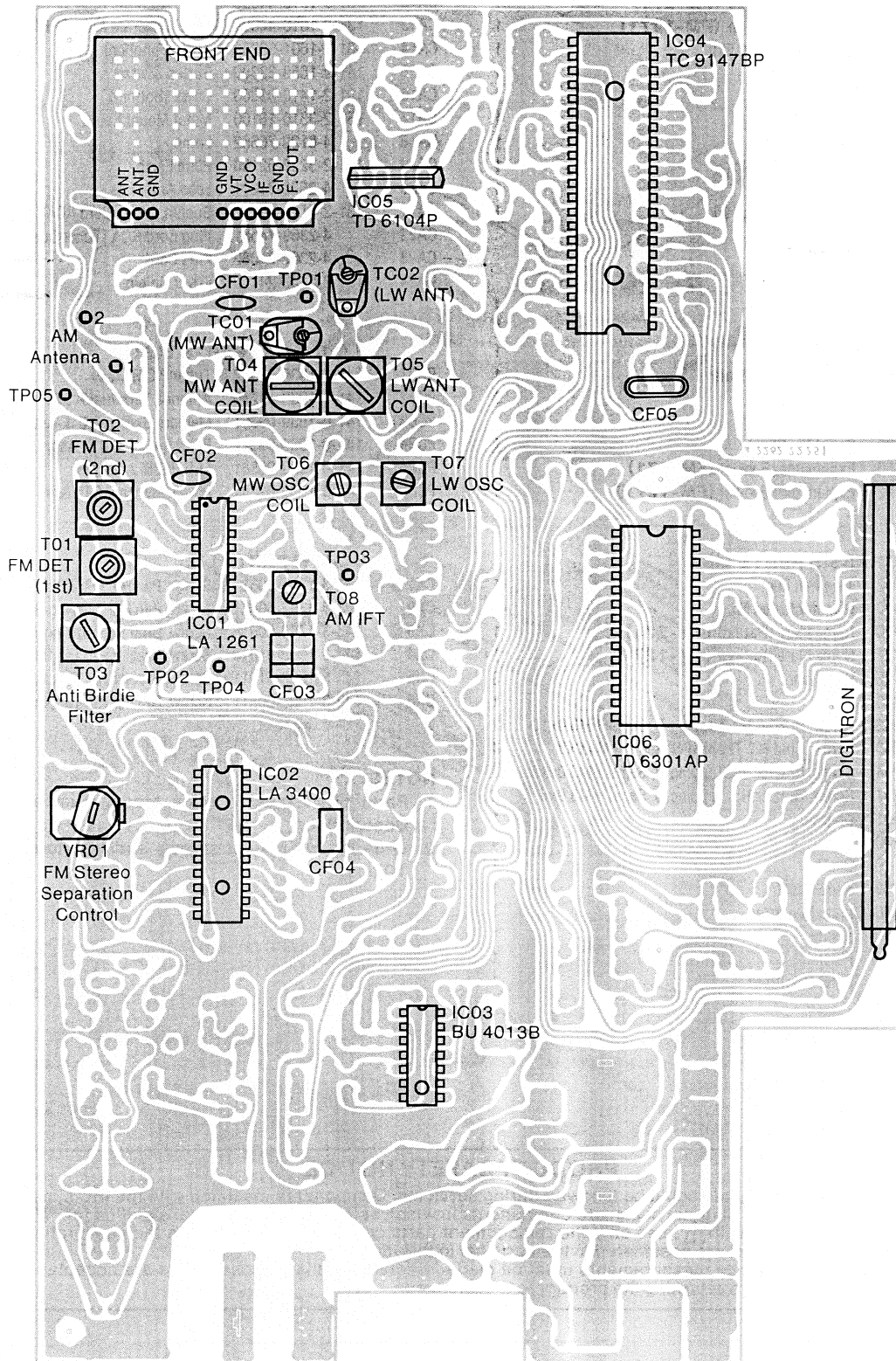
PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
PACKING PARTS LIST				CA11	131-2-4221-00600	Rivet	2
	3-9415-10300	Bag Polyethylene	1	CA12	131-2-6308-23500	Filter (Clear)	1
	131-6-1169-16803	Box Corrugate-Exp. (FM-271)	1	CA13	131-0-1016-44603	Panel Decorate Assy (FM-271)	1
	131-6-1169-16805	Box Corrugate-Exp. (FM-1271)	1	CA13	131-0-1016-44605	Panel Decorate Assy (FM-1271)	1
	131-6-2119-02090	Bag Polyethylene-Exp.	1	CA14	131-2-1601-93200	Knob (Function)	1
	131-6-3009-35610	Pad (Right)	1	CA15	141-2-1659-33300	Button Switch	9
	131-6-3009-35620	Pad (Left)	1	CA16	131-2-1410-33000	Cover (Bottom)	1
	131-6-3009-35660	Pad (Sleeve)	1	CA17	131-2-3310-18100	Metal Mount Lamp	1
	131-6-3069-16350	Patching Sheet	1	CA18	4-6129-70662	Lamp	1
	131-6-4559-10900	Manufacturing No.	1	CA19	141-2-3229-52100	Plate Earth	1
	131-6-9459-00300	Rubber Band	1	CA20	4-2579-71601	Loop Antenna	1
	141-6-2519-10019	Poly Cover 100 x 190	1	CA21	131-2-6111-14200	Bushing (Plug Cord RCA)	1
ACCESSORIES PARTS LIST				CA22	4-2369-74581	Plug Cord RCA (Tuner Output)	1
	4-2449-20260	Antenna FM	1	CA23	△ 4-2369-74062	Plug Cord	1
	131-0-4012-00180	FM Antenna Assy	1	CA24	131-2-6103-24100	Cover Shield	1
	131-6-2719-10801	Pag Fan	1	P.C.B. ASSY PARTS LIST			
	131-6-4519-15700	Guarranty Certificate	1	PCB1	141-0-1939-09342	Tuner P.C.B. Assy	1
	131-6-4559-11200	Serial No. Sheet	1	PCB2	141-0-1939-11240	Antenna Terminal P.C.B. Assy	1
	141-2-1729-00500	Hilder Antenna	1	PCB3	141-0-1939-09361	Memory Switch P.C.B. Assy	1
	141-6-4559-03300	Serial No. Sheet	1	PCB4	141-0-1939-09371	Band Switch P.C.B. Assy	1
	142-6-4119-32455	Explanatory Booklet (FM-271)	1	PCB5	141-0-1939-09381	LED P.C.B. Assy	1
	142-6-4119-32502	Explanatory Booklet (FM-1271)	1	PCB6	141-0-1939-09391	Power Switch P.C.B. Assy	1
CABINET & CHASSIS PARTS LIST				SCREW PARTS LIST			
	4-2379-21522	Terminal Lug	1	CX1	101-3-1303-00811	Screw, Pan Hd. +M3.0x8	2
	131-6-4559-10900	Manufacturing No.	1	CX2	143-3-1302-60811	Screw, Pan Hd. Tapping-B, +M2.6x8	9
	141-2-1419-16730	Name Plate (Rating) (FM-271)	1	CX3	143-3-1702-60818	Screw, Bind Hd. Tapping-B, +M2.6x8	6
	141-2-1419-16737	Name Plate (Rating) (FM-1271)	1	CX4	143-3-1903-01018	Screw, Brazier Hd. Tapping-B, +M3.0x10	2
	141-2-4729-07100	Wire Band	3	CX5	143-3-1902-61011	Screw, Brazier Hd. Tapping-B, +M2.6x10	5
CA1	141-2-1119-93300	Cover	1	CX6	143-3-1903-00811	Screw, Brazier Hd. Tapping-B, +M3.0x8	5
CA2	131-2-4201-25303	Screw, Brazier Hd. Tapping-B, Sems +M3.0x10	1	NOTES:			
CA3	141-2-4219-38400	Screw, Bind Hd. Tapping-B, Sems +M4.0x8	4	1. Parts order must contain Model Number, Part Number and Description.			
CA4	131-2-4201-25204	Screw, Brazier Hd. Tapping-B, Sems +M3.0x12	1	2. Ordering quantity of screws and resistors must be multiple of 10 pcs.			
CA5	131-2-4201-25201	Screw, Brazier Hd. Tapping-B, Sems +M3.0x8	2				
CA6	131-2-3301-31501	Chassis	1				
CA7	131-2-1801-16200	Leg	4				
CA8	131-2-4219-17100	Shaft	1				
CA9	131-2-1601-85203	Knob Push	1				
CA10	131-0-1008-13500	Plate Dial Assy	1				
	131-2-6113-51900	Shelter	1				
	131-2-6308-23600	Filter	1				
	131-2-6308-23700	Filter (Digitron)	1				

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

TUNER P.C.BOARD LAYOUT ALIGNMENT POINTS (TOP VIEW)



RECOMMENDED TEST EQUIPMENTS

The following test equipments are recommended to completely test and align the Tuner:

- Line Voltage Isolation Transformer
- Accurately Calibrated AC Voltmeter
- DC Voltmeter (High Impedance 1M Ω)
- Standard Signal Generator for AM
- Standard Signal Generator for FM
- IF Generator Scope
- Stereo Signal Generator
- Multiplex Generator
- Loop Antenna for AM
- Dummy Antenna (300 ohm, Balanced Type) for FM
- Frequency Counter
- Distortion Meter
- Oscilloscope

FM TUNER ALIGNMENT

FM ALIGNMENT – FUNCTION switch to FM position.

Note: It is almost unnecessary to adjust coil in Front End as perfectly adjusted.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
Note: The FM IF circuit utilizes a non-turnable ceramic filter which establishes the IF bandpass. To insure symmetrical turning and selectivity, the IF must be aligned precisely to the center of the filter bandpass, rather than to 10.7MHz as in conventional LC circuits.				
1. S-CURVE ALIGNMENT	Connect 10.7MHz Radio IF Genescope output level 70dB to terminal TP01 and ground terminal. Use 5pF capacitor in series with generator output.	Position of non-interference. Minimum Frequency.	Connect Radio IF Genescope input to TP02 and ground terminal.	Adjust FM DET 1st Coil (T01), so that S-wave form becomes symmetrical.
2. FINAL DETECTOR ADJUSTMENT (MINIMUM T.H.D.)	Connect FM RF Signal Generator to through FM Dummy Antenna to FM Antenna terminals. Set Generator to 98MHz ± 2 kHz. Modulate with 1kHz to provide ± 40 kHz deviation. Setting Generator with attenuator output level for 60dB μ .	Front Panel DIGITAL Counter Display Set to 98MHz.	Connect Harmonic Distortion Analyzer to TUNER OUT.	Adjust FM DET 2nd Coil (T02) for minimum gain and best linearity. Note: If the numerical value of Harmonic Distortion can not be approved as an appropriate value to the specifications, adjust the FM IFT located inside the Front End to minimize the value as small as possible within the range of 360° (degrees).
Note: Repeat Step 1 (FM DET Coil T01) and 2 (FM DET Coil T02) until optimum alignment is reached.				
3. FM STEREO SIGNAL SEPARATION CONTROL	Connect FM Stereo SG to FM Antenna terminals. 19kHz signal ON. Main channel, sub channel signal ON. Apply 1000Hz signal from LEFT channel.		Scope and AC-VTVM to RIGHT TUNER OUT.	Adjust VR01 for minimum output.
	Same as above for RIGHT channel.		Scope and AC-VTVM to LEFT TUNER OUT.	

Use a screwdriver with plastic grip for all adjustments.

CAUTION: This precision high-fidelity instrument should be serviced only by qualified personnel, trained in the repair of transistor equipment and printed circuitry.

AM TUNER ALIGNMENT

AM ALIGNMENT – FUNCTION switch to LW or MW position.
Maintain generator output as low as possible for suitable indication.

ITEM	GENERATOR	DIAL SETTING	INDICATOR	PROCEDURE
1. AM IF ALIGNMENT	Connect 450kHz Radio IF Genescope output level 70dB to TP03 and ground terminal.	Position of non-interference. Minimum Frequency.	Connect Radio IF Genescope input to TP04 and ground terminal.	Adjust AM IFT (T08) for maximum gain and best symmetry.
2. MW (RF) FREQUENCY COVER ALIGNMENT (1611kHz)	Do not connect generator.	Front Panel DIGITAL Counter Display Set to 1611kHz.	Connect DC Voltmeter to TP05 and ground terminal.	Voltmeter reading Specified Tuning Voltage Value (See Table 1).
3. (522kHz)	Same as above.	DIGITAL Counter Display Set to 522kHz.	Same as above.	Same as above.
4. MW (RF) TRACKING ALIGNMENT (603kHz)	Connect Standard Loop Antenna to output terminal of AM RF Signal Generator. Place Loop Antenna 60cm away from Loop Antenna (FM-271). Generator Setting to 603kHz or 1404kHz. Modulate with 400Hz (30% modulation).	DIGITAL Counter Display Set to 603kHz.	Connect AC VTVM and Oscilloscope to TUNER OUT.	Adjust MW Antenna Coil (T04) for maximum gain output.
5. (1404kHz)		DIGITAL Counter Display Set to 1404kHz.	Same as above.	Adjust MW Antenna Trimmer (TC01) for maximum gain output.
Note: Repeat the adjustments in Items 4 and 5. Then, confirm that there is no tracking error.				
6. LW (RF) FREQUENCY COVER ALIGNMENT (360kHz)	Do not connect generator.	Front Panel DIGITAL Counter Display Set to 360kHz.	Connect DC Voltmeter to TP05 and ground terminal.	Voltmeter reading Specified Tuning Voltage Value (See Table 1).
7. (153kHz)	Same as above.	DIGITAL Counter Display Set to 153kHz.	Same as above.	Same as above.
8. LW (RF) TRACKING ALIGNMENT (160kHz)	Connect Standard Loop Antenna to output terminal of AM RF Signal Generator. Place Loop Antenna 60cm away from Loop Antenna (FM-271). Generator Setting to 160kHz or 350kHz. Modulate with 400Hz (30% modulation).	DIGITAL Counter Display Set to 160kHz.	Connect AC VTVM and Oscilloscope to TUNER OUT.	Adjust LW Antenna Coil (T05) for maximum gain output.
9. (350kHz)		DIGITAL Counter Display Set to 350kHz.	Same as above.	Adjust LW Antenna Trimmer (TC02) for maximum gain output.
Note: Repeat the adjustments in Items 8 and 9. Then, confirm that there is no tracking error.				

Use a screwdriver with plastic grip for all adjustments.

MW/LW Frequency Cover Range

Tuning Voltage Value at TP05

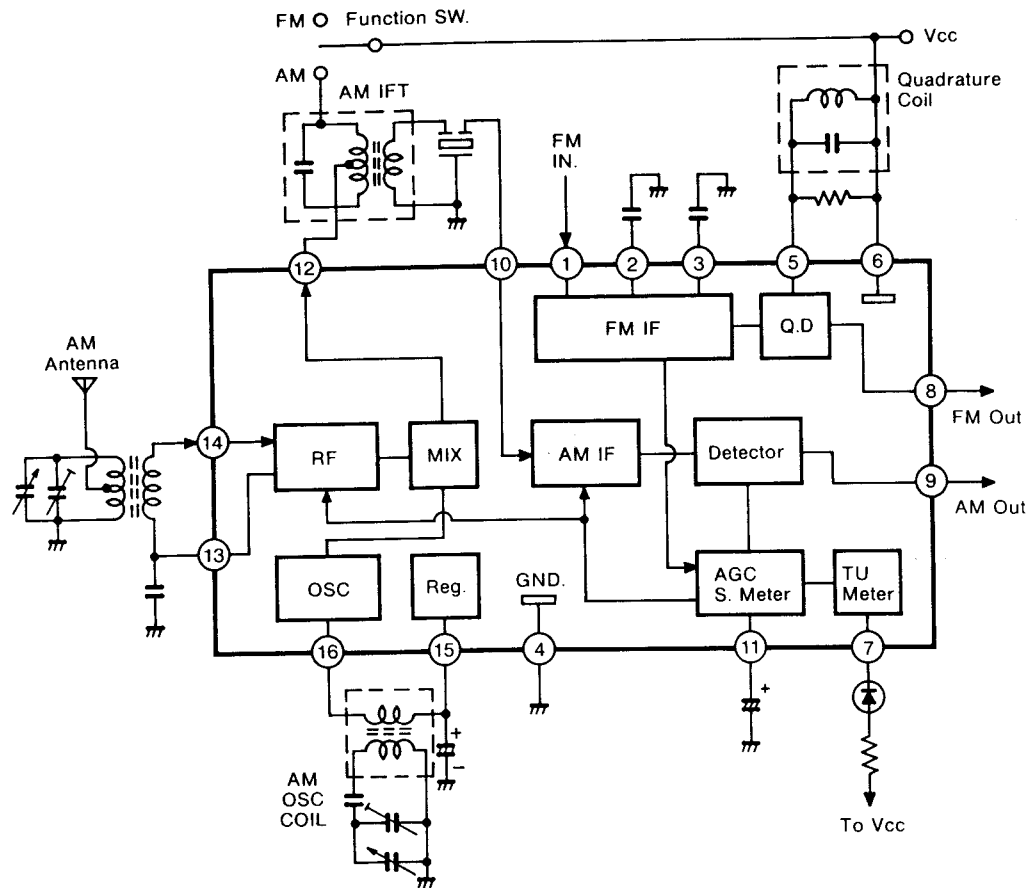
(Table 1)

	153 kHz	360 kHz	522 kHz	1611 kHz
Minimum	0.8 V	7.0 V	0.7 V	7.0 V
Typical	1.1 V	7.3 V	1.05 V	8.2 V
Maximum	1.3 V	9.0 V	1.3 V	9.0 V

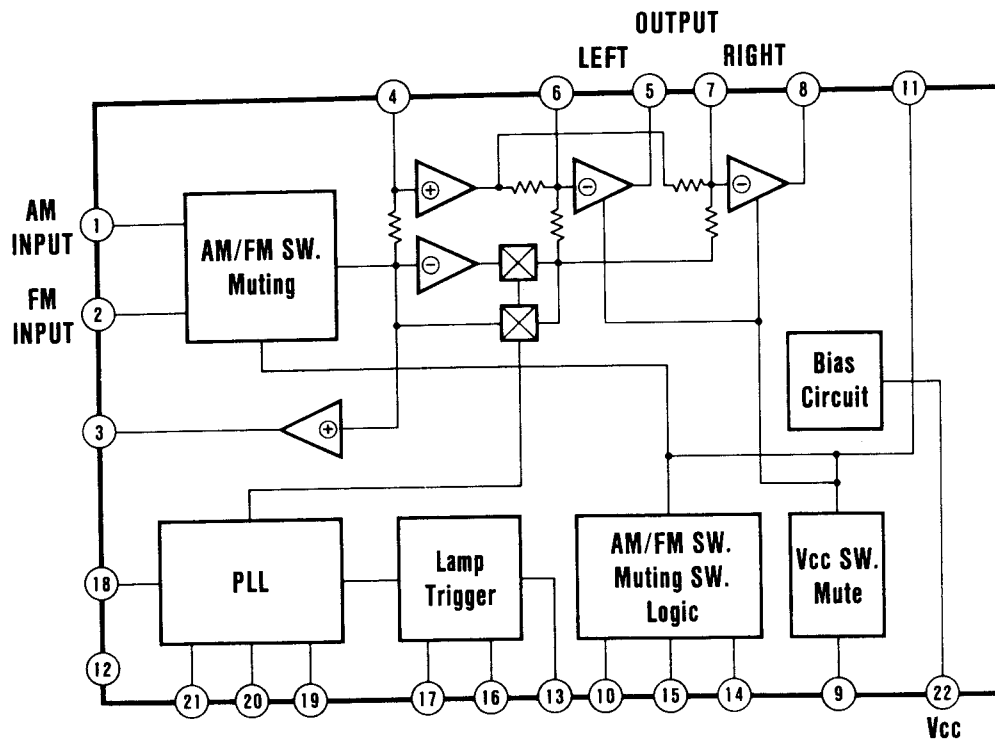
TROUBLE SHOOTING GUIDE

Tuning Frequency		Tuning Voltage	Possible Cause	Corrective Action
MW	522kHz	Low Voltage	MW OSC Coil (T06) Inductance is too little.	Adjust MW OSC Coil (T06) at Tuning Frequency 522kHz.
	1611kHz	Normal		
	522kHz	High Voltage	MW OSC Coil (T06) Inductance is too much.	Same as above.
	1611kHz	Normal		
LW	153kHz	Low Voltage	LW OSC Coil (T07) Inductance is too little.	Adjust LW OSC Coil (T07) at Tuning Frequency 153kHz.
	360kHz	Normal		
	153kHz	High Voltage	LW OSC Coil (T07) Inductance is too much.	Same as above.
	360kHz	Normal		
MW	522kHz	Normal	C12 Capacitance is too little.	Increase Capacity of C12.
	1611kHz	Low Voltage		
	522kHz	Normal	C12 Capacitance is too much.	Decrease Capacity of C12.
	1611kHz	High Voltage		
LW	153kHz	Normal	C20 Capacitance is too little.	Increase Capacity of C20.
	360kHz	Low Voltage		
	153kHz	Normal	C20 Capacitance is too much.	Decrease Capacity of C20.
	360kHz	High Voltage		
MW	522kHz	Low Voltage	D01,02 (SVC 321) Rank is wrong or bad parts.	Replace D01, 02 (SVC 321) and/or check PLL Circuit of IC04, Q06 and Q15, 16.
	1611kHz	Low Voltage		
	522kHz	High Voltage	Same as above.	Same as above.
	1611kHz	High Voltage		
LW	153kHz	Low Voltage	Same as above.	Same as above.
	360kHz	Low Voltage		
	153kHz	High Voltage	Same as above.	Same as above.
	360kHz	High Voltage		
TC01 Trimmer Condenser cannot be adjusted.			The fin of Trimmer Condenser is completely exposed to the outside.	If the Tuning Voltage is less than 8.5V, add 2pF with a parallel cross C12 15pF. If the Tuning Voltage is more than 8.5V, replace D01, 02 (SVC321) and readjust it.
TC02 Trimmer Condenser cannot be adjusted.			Same as above.	If the Tuning Voltage is normal, replace C15 15pF with 12pF and readjust it.
TC02 Trimmer Condenser cannot be adjusted.			The fin of Trimmer Condenser is completely concealed by the body of Trimmer Condenser.	If the Tuning Voltage is normal, replace C15 15pF with 18pF and readjust it.

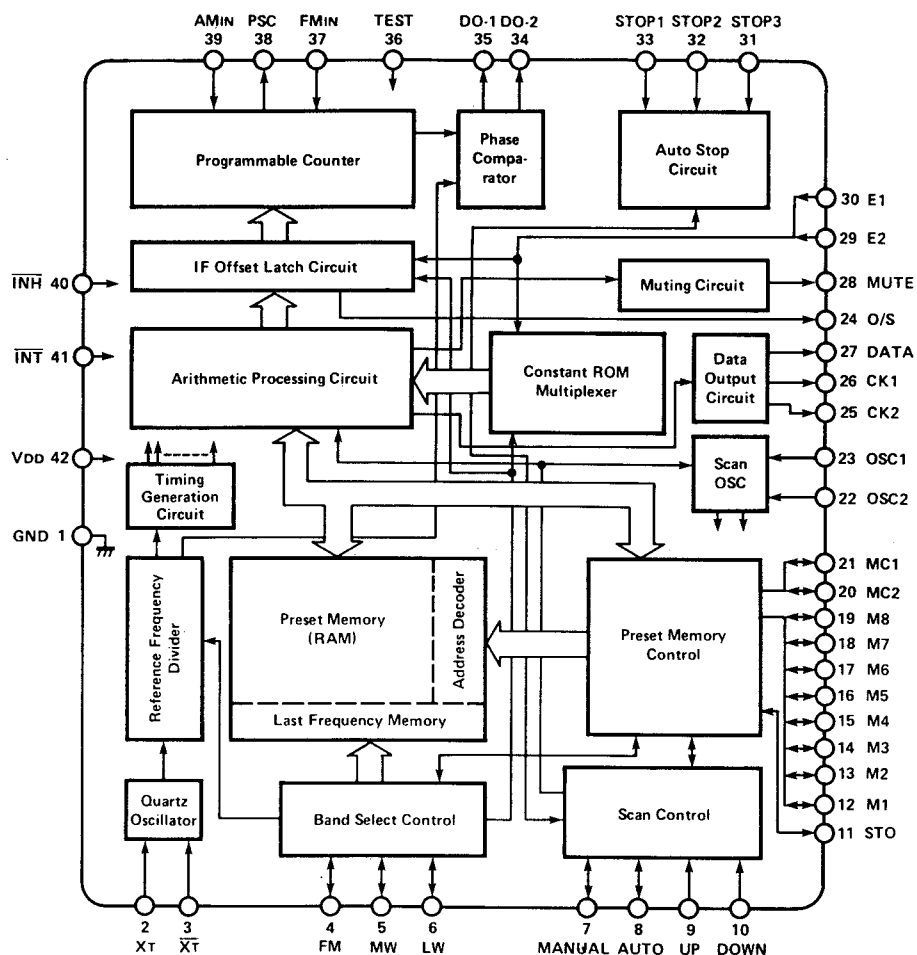
AM RF IF FM IF IC LA 1261 SIGNAL FLOW



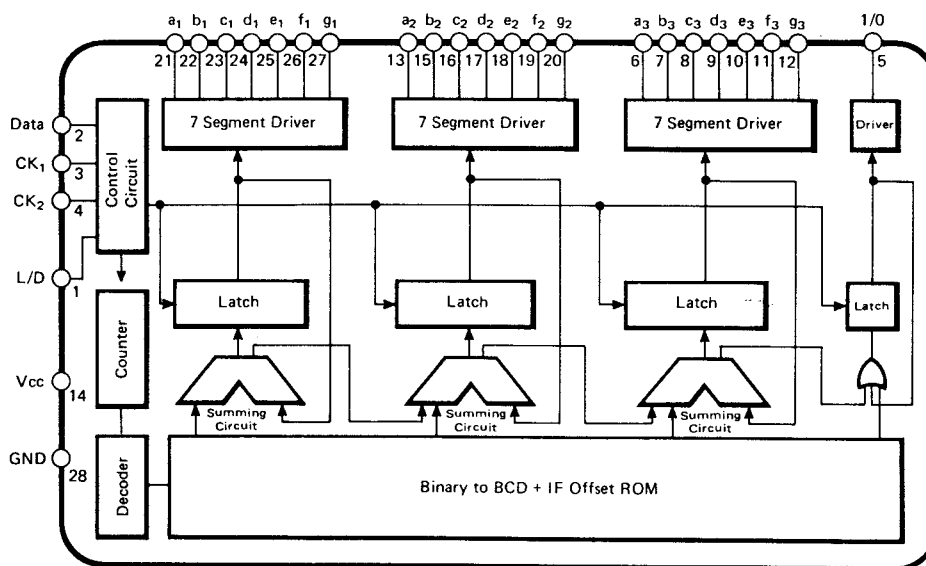
FM MPX IC LA 3400 SIGNAL FLOW



PLL CONTROL IC TC 9147 BP SIGNAL FLOW



STATIC DRIVER IC TD 6301 AP SIGNAL FLOW



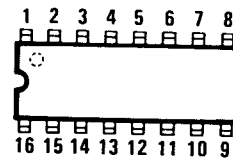
1



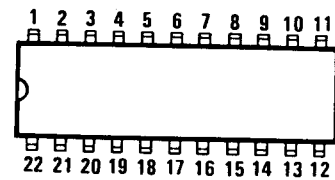
SEMICONDUCTOR LEAD IDENTIFICATION

TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA 608 2SC 536 2SC 732 2SC 930		
2SD 1012		
2SD 330		
2SK 246		
TERMINAL NAME B→BASE C→COLLECTOR E→EMITTER S→SOURCE G→GATE D→DRAIN		

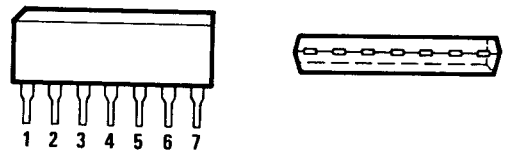
LA 1261 BOTTOM VIEW



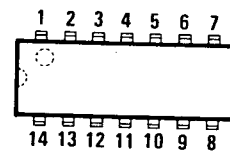
LA 3400 BOTTOM VIEW



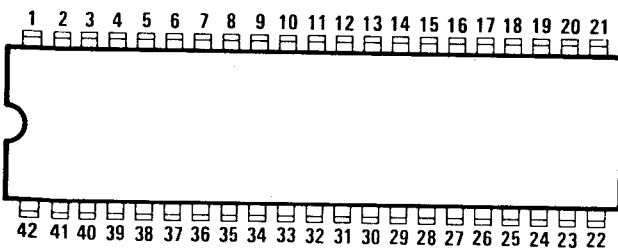
TD 6104 P FRONT/BOTTOM VIEWS



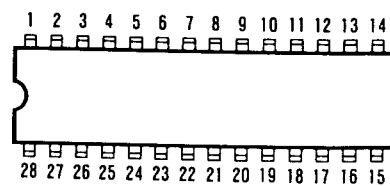
BU 4013 BOTTOM VIEW



TC 9147 BP BOTTOM VIEW



TD 6301 AP BOTTOM VIEW



P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
TUNER P.C.B. ASSY				C36	CD4-7-5250-0001V	Electrolytic 4.7μF 25V	1
PCB1	141-0-1939-09342	Tuner P.C.B. Assy	1	C37	CD4-7-4500-0001V	Electrolytic 0.47μF 50V	1
	4-2262-22251	Tuner P.C.B.	1	C38	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
	4-1259-72031	FM Front End	1	C39	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
D601	4-2142-00080	Digitron	1	C40	CC2-2-1500-KD00C	Ceramic 220pF 50V ±10%	1
CF01	4-2272-00301	Ceramic Filter 10.7MHz	1	C41	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1
CF02	4-2272-00301	Ceramic Filter 10.7MHz	1	C42	CC3-9-1500-KE00C	Ceramic 390pF 50V ±10%	1
CF03	4-2272-00250	Ceramic Filter	1	C43	CC3-9-1500-KE00C	Ceramic 390pF 50V ±10%	1
CF04	4-2279-70080	Ceramic OSC	1	C45	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
CF05	4-2252-00082	Crystal 7.2MHz	1	C46	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
T01	4-2569-71690	FM DET 1st	1	C47	CC4-7-2500-KE00C	Ceramic 0.0047μF 50V ±10%	1
T02	4-2569-71691	FM DET 2nd	1	C48	CC4-7-2500-KE00C	Ceramic 0.0047μF 50V ±10%	1
T03	4-2529-70230	Anti Birdie Filter	1	C49	CI2-2-3160-NG00R	Boundary 0.022μF 16V ±30%	1
T04	4-2579-71730	MW ANT Coil	1	C50	CD1-0-7100-0001V	Electrolytic 100μF 10V	1
T05	4-2579-71740	LW ANT Coil	1	C51	CD2-2-8100-0001V	Electrolytic 2200μF 10V	1
T06	4-2589-72470	MW OSC Coil	1	C52	CD4-7-663A-0001V	Electrolytic 47μF 6.3V	1
T07	4-2589-72480	LW OSC Coil	1	C53	CC2-7-0500-JCH0C	Ceramic 27pF 50V ±5%	1
T08	4-2569-71680	MW IFT	1	C54	CC2-7-0500-JCH0C	Ceramic 27pF 50V ±5%	1
L01	4-2539-71600	Choke Coil (33μH)	1	C56	CD4-7-663A-0001V	Electrolytic 47μF 6.3V	1
L02	4-2539-71420	Choke Coil (100μH)	1	C57	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
L03	4-2539-71420	Choke Coil (100μH)	1	C58	CD4-7-6160-0001V	Electrolytic 47μF 16V	1
VR01	4-2222-00960	Potentiometer B-100kΩ	1	C59	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
TC01	4-2242-00120	Film Trimmer 8pF	1	C60	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
TC02	4-2242-00180	Film Trimmer 16pF	1	C61	CC2-2-3500-ZG00C	Ceramic 0.022μF 50V +80.-20%	1
	111-2-6220-11100	Wire Wrap Terminal	14	C62	CC3-9-0500-KD00C	Ceramic 39pF 50V ±10%	1
	131-2-5205-22503	Cushion	1	C63	CC3-9-0500-KD00C	Ceramic 39pF 50V ±10%	1
	131-2-6108-11201	Cover Sever	2	C64	CI2-2-3160-NG00R	Boundary 0.022μF 16V ±30%	1
	131-2-6201-33600	Heatsink (For Q22)	1	C65	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
	141-2-3889-03400	Bracket Digitron	1	C66	CI1-0-3250-MF00R	Boundary 0.01μF 25V ±20%	1
				C67	CI1-0-3250-MF00R	Boundary 0.01μF 25V ±20%	1
				C68	CD4-7-4500-0001V	Electrolytic 0.47μF 50V	1
CAPACITORS				C69	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C01	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C70	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C02	CC4-7-0500-KD00C	Ceramic 47pF 50V ±10%	1	C71	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C03	CI2-2-3160-NG00R	Boundary 0.022μF 16V ±30%	1	C72	CD1-0-8250-0001V	Electrolytic 1000μF 25V	1
C05	CC2-2-3500-ZG00C	Ceramic 0.022μF 50V +80.-20%	1	C73	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C06	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C74	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C07	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C75	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C08	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C76	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1
C09	CD4-7-663A-0001V	Electrolytic 47μF 6.3V	1	C77	CD4-7-6100-0001V	Electrolytic 47μF 10V	1
C10	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C78	CD1-0-7160-0001V	Electrolytic 100μF 16V	1
C11	CD2-2-6100-0001V	Electrolytic 22μF 10V	1	C79	CD4-7-6160-0001V	Electrolytic 47μF 16V	1
C12	CC1-5-0500-KD00C	Ceramic 15pF 50V ±10%	1	C80	CD1-0-5500-0001V	Electrolytic 1μF 50V	1
C13	CC1-0-3500-ZG00C	Ceramic 0.01μF 50V +80.-20%	1	C81	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C14	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C82	CD3-3-5500-0001V	Electrolytic 3.3μF 50V	1
C15	CC1-8-0500-KD00C	Ceramic 18pF 50V ±10%	1	C83	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1
C16	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C84	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C17	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C85	CD2-2-6100-0001V	Electrolytic 22μF 10V	1
C18	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C86	CD2-2-6100-0001V	Electrolytic 22μF 10V	1
C19	CI2-2-3160-NG00R	Boundary 0.022μF 16V ±30%	1	C87	CD1-0-6160-0001V	Electrolytic 10μF 16V	1
C20	CC6-8-0500-KD00C	Ceramic 68pF 50V ±10%	1	C88	CD4-7-6100-0001V	Electrolytic 47μF 10V	1
C21	CC2-2-3500-ZG00C	Ceramic 0.022μF 50V +80.-20%	1	C91	CI2-2-2500-KE00R	Boundary 0.0022μF 50V ±10%	1
C22	CC2-2-3500-ZG00C	Ceramic 0.022μF 50V +80.-20%	1	C94	CM1-0-3500-K00SV	Mylar 0.01μF 50V ±10%	1
C23	CS4-3-1500-J000V	Polystyroul 430pF 50V ±5%	1	C101	CD2-2-5500-0001V	Electrolytic 2.2μF 50V	1
C24	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	C102	CC4-7-3500-ZG00C	Ceramic 0.047pF 50V +80.-20%	1
C25	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	SEMICONDUCTORS			
C26	CS3-3-1500-J000V	Polystyroul 330pF 50V ±5%	1	D01	202-5-1260-32123	Diode, SVC 321	1
C27	CC4-7-3500-ZG00C	Ceramic 0.047μF 50V +80.-20%	1	D02	202-5-1260-32123	Diode, SVC 321	1
C28	CD1-0-6160-0001V	Electrolytic 10μF 16V	1	D03	202-5-2810-44210	Diode, DS 442	1
C29	CC4-7-0500-KD00C	Ceramic 47pF 50V ±10%	1	D04	202-5-2810-44210	Diode, DS 442	1
C30	CD1-0-6160-0001V	Electrolytic 10μF 16V	1	D05	202-5-2810-44210	Diode, DS 442	1
C32	CM2-7-3500-K00SV	Mylar 0.027μF 50V ±10%	1	D06	202-5-2810-44210	Diode, DS 442	1
C33	CC1-0-2500-KE00C	Ceramic 0.001μF 50V ±10%	1	D07	202-5-2810-44210	Diode, DS 442	1
C34	CM4-7-3500-K00SV	Mylar 0.047μF 50V ±10%	1				
C35	CC1-0-2500-KE00R	Ceramic 0.001μF 50V ±10%	1				

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
D08	202-5-2810-44210	Diode, DS 442	1	R09	RD2-2-0251-JS000	Carbon 22Ω 1/4W ±5%	1
D09	202-5-2810-44210	Diode, DS 442	1	R11	RD1-0-5251-JM000	Carbon 1MΩ 1/4W ±5%	1
D10	202-5-2810-44210	Diode, DS 442	1	R12	RD2-2-3251-JM000	Carbon 22KΩ 1/4W ±5%	1
D11	202-5-2810-44210	Diode, DS 442	1	R13	RD2-2-2251-JM000	Carbon 2.2KΩ 1/4W ±5%	1
D12	202-5-2810-44210	Diode, DS 442	1	R14	RD1-0-5251-JM000	Carbon 1MΩ 1/4W ±5%	1
D13	202-5-2810-44210	Diode, DS 442	1	R15	RD5-6-2251-JM000	Carbon 5.6kΩ 1/4W ±5%	1
D14	202-5-2810-44210	Diode, DS 442	1	R16	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
D15	202-5-2810-44210	Diode, DS 442	1	R17	RD4-7-1251-JM000	Carbon 470Ω 1/4W ±5%	1
D16	202-5-2810-44210	Diode, DS 442	1	R18	RD3-3-2251-JM000	Carbon 3.3kΩ 1/4W ±5%	1
D17	202-5-2810-44210	Diode, DS 442	1	R19	RD1-0-1251-JM000	Carbon 100Ω 1/4W ±5%	1
D18	202-5-2810-44210	Diode, DS 442	1	R20	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
D19	202-5-2810-44210	Diode, DS 442	1	R21	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
D20	202-5-2810-44210	Diode, DS 442	1	R22	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
D21	202-5-2810-44210	Diode, DS 442	1	R23	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
D22	202-5-0220-01010	Diode, DSF 10 C	1	R24	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
D23	202-5-0220-01010	Diode, DSF 10 C	1	R25	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
D24	202-5-0220-01010	Diode, DSF 10 C	1	R28	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
D25	202-5-0220-01010	Diode, DSF 10 C	1	R29	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
D26	202-5-0220-01010	Diode, DSF 10 C	1	R30	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
D27	202-5-3210-12013	Zener Diode, GZA 12 Z	1	R31	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
D28	202-5-2810-44210	Diode, DS 442	1	R32	RD1-0-1251-JM000	Carbon 100Ω 1/4W ±5%	1
IC01	207-5-3281-26110	IC, LA 1261	1	R33	RD3-3-2251-JM000	Carbon 3.3kΩ 1/4W ±5%	1
IC02	207-5-0743-40010	IC, LA 3400	1	R34	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
IC03	4-2069-74380	IC, BU 4013 B	1	R35	RD1-0-1251-JM000	Carbon 100Ω 1/4W ±5%	1
IC04	4-2069-73930	IC, TC 9147 BP	1	R36	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
IC05	ITT---TD61-04P- -	IC, TD 6104 P	1	R38	RD3-3-2161-JH000	Carbon 3.3kΩ 1/6W ±5%	1
IC06	ITT---TD63-01AP-	IC, TD 6301 AP	1	R39	RD2-2-0251-JS000	Carbon 22Ω 1/4W ±5%	1
Q01	203-5-4921-01280	Transistor, 2SD 1012	1	R41	RD6-8-1251-JM000	Carbon 680Ω 1/4W ±5%	1
Q02	4-2039-71410	FET, 2SK 246	1	R42	RD1-3-4251-JM000	Carbon 130kΩ 1/4W ±5%	1
Q03	203-5-5000-53670	Transistor, 2SC 536	1	R43	RD1-3-4251-JM000	Carbon 130kΩ 1/4W ±5%	1
Q04	203-5-5000-53670	Transistor, 2SC 536	1	R46	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q05	203-5-5000-53670	Transistor, 2SC 536	1	R47	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q06	203-5-5000-53670	Transistor, 2SC 536	1	R48	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q07	203-5-5500-93050	Transistor, 2SC 930	1	R49	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q08	203-5-5000-53670	Transistor, 2SC 536	1	R50	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
Q09	203-5-4921-01280	Transistor, 2SD 1012	1	R51	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
Q10	203-5-4921-01280	Transistor, 2SD 1012	1	R52	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q11	203-5-5000-53670	Transistor, 2SC 536	1	R53	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q12	203-5-7230-60870	Transistor, 2SA 608	1	R54	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
Q13	203-5-5000-53670	Transistor, 2SC 536	1	R55	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
Q14	203-5-5000-53650	Transistor, 2SC 536	1	R57	RD2-2-2251-JM000	Carbon 2.2kΩ 1/4W ±5%	1
Q15	4-2039-71412	FET, 2SK 246	1	R58	RD1-0-3251-JM000	Carbon 10kΩ 1/4W ±5%	1
Q16	TTT---2SC7-32TMB	Transistor, 2SC 732	1	R59	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
Q17	203-5-5000-53670	Transistor, 2SC 536	1	R60	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
Q18	203-5-5000-53670	Transistor, 2SC 536	1	R61	RD1-0-4251-JM000	Carbon 100kΩ 1/4W ±5%	1
Q19	203-5-5000-53670	Transistor, 2SC 536	1	R62	RD3-3-4251-JM000	Carbon 330kΩ 1/4W ±5%	1
Q20	203-5-5000-53670	Transistor, 2SC 536	1	R63	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
Q21	203-5-5000-53670	Transistor, 2SC 536	1	R65	RD1-0-3251-JM000	Carbon 10kΩ 1/4W ±5%	1
Q22	203-5-8570-33060	Transistor, 2SD 330	1	R66	RD1-0-3251-JM000	Carbon 10kΩ 1/4W ±5%	1
Q23	4-2039-71411	FET, 2SK 246	1	R67	RD1-0-3251-JM000	Carbon 10kΩ 1/4W ±5%	1
Q24	203-5-5000-53670	Transistor, 2SC 536	1	R68	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
Q25	203-5-5000-53670	Transistor, 2SC 536	1	R69	RD4-7-3251-JM000	Carbon 47kΩ 1/4W ±5%	1
Q26	203-5-7230-60850	Transistor, 2SA 608	1	R70	RD2-2-3251-JM000	Carbon 22kΩ 1/4W ±5%	1
Q27	203-5-7230-60850	Transistor, 2SA 608	1	R71	RD1-0-3161-JH000	Carbon 10kΩ 1/6W ±5%	1
Q28	203-5-5000-53650	Transistor, 2SC 536	1	R72	RD2-2-1161-JH000	Carbon 220Ω 1/6W ±5%	1
				R73	RD1-0-1251-JM000	Carbon 100Ω 1/4W ±5%	1
				R74	RD1-0-2251-JM000	Carbon 1kΩ 1/4W ±5%	1
				R75	RD3-3-4161-JH000	Carbon 330kΩ 1/6W ±5%	1
				R76	RD3-3-4251-JM000	Carbon 330kΩ 1/4W ±5%	1
				R77	RD4-7-2161-JH000	Carbon 4.7kΩ 1/6W ±5%	1
				R78	RD2-7-2251-JM000	Carbon 2.7kΩ 1/4W ±5%	1
				R79	RD2-7-2251-JM000	Carbon 2.7kΩ 1/4W ±5%	1
				R80	RD2-7-1251-JM000	Carbon 270Ω 1/4W ±5%	1
				R81	RD2-7-1251-JM000	Carbon 270Ω 1/4W ±5%	1
						</	

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty		
R82	RD5-6-2251-JM000	Carbon	5.6kΩ 1/4W ±5%	1		4-2372-01141	Antenna Terminal 3P	1	
R83	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1		131-2-3603-15400	Metal Mount Antenna	1	
R84	RD1-0-2251-JM000	Carbon	1kΩ 1/4W ±5%	1	L01	4-2539-71610	Choke Coil (470μH)	1	
R85	RD6-8-3161-JH000	Carbon	68kΩ 1/6W ±5%	1					
R86	RD6-8-3161-JH000	Carbon	68kΩ 1/6W ±5%	1					
R87	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1	R01	RD8-2-2251-JM000	Carbon	8.2kΩ 1/4W ±5%	1
R88	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R89	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R90	RD1-0-4251-JM000	Carbon	100kΩ 1/4W ±5%	1					
R91	RD1-0-4251-JM000	Carbon	100kΩ 1/4W ±5%	1	PCB3	141-0-1939-09361	Memory Switch P.C.B. Assy	1	
R92	RD1-0-4251-JM000	Carbon	100kΩ 1/4W ±5%	1		4-2262-22271	Memory Switch P.C.B.	1	
R93	RD2-7-2251-JM000	Carbon	2.7kΩ 1/4W ±5%	1	S01	4-2312-05300	Keyboard Switch 6mm (Memory)	1	
R94	RD2-7-2251-JM000	Carbon	2.7kΩ 1/4W ±5%	1	S02	4-2312-05300	Keyboard Switch 6mm (8)	1	
R95	RD1-0-2501-JZ000	Carbon	1kΩ 1/2W ±5%	1	S03	4-2312-05300	Keyboard Switch 6mm (7)	1	
R96	RD6-8-1251-JM000	Carbon	680Ω 1/4W ±5%	1	S04	4-2312-05300	Keyboard Switch 6mm (6)	1	
R97	RD1-0-4251-JM000	Carbon	100kΩ 1/4W ±5%	1	S05	4-2312-05300	Keyboard Switch 6mm (5)	1	
R98	RD2-2-3251-JM000	Carbon	22kΩ 1/4W ±5%	1	S06	4-2312-05300	Keyboard Switch 6mm (4)	1	
R99	RD3-3-4251-JM000	Carbon	330kΩ 1/4W ±5%	1	S07	4-2312-05300	Keyboard Switch 6mm (3)	1	
R100	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S08	4-2312-05300	Keyboard Switch 6mm (2)	1	
R101	RD2-2-3251-JM000	Carbon	22kΩ 1/4W ±5%	1	S09	4-2312-05300	Keyboard Switch 6mm (1)	1	
R102	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1		131-2-4208-46300	Spacer (L.E.D.)	1	
R103	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R104	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R105	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	D01	D00---SLP--175B-	L.E.D., SLP 175 B (Memory)	1	
R106	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R107	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R108	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	R01	RD6-8-1161-JH000	Carbon	680Ω 1/6W ±5%	1
R109	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	R03	RD3-3-1251-JM001	Carbon	330Ω 1/4W ±5%	1
R110	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R111	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R112	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R113	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	PCB4	141-0-1939-09371	Band Switch P.C.B. Assy	1	
R114	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1		4-2262-22281	Band Switch P.C.B.	1	
R115	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S01	4-2312-05300	Keyboard Switch 6mm (Mode)	1	
R116	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S02	4-2312-05300	Keyboard Switch 6mm (LW)	1	
R117	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S04	4-2312-05300	Keyboard Switch 6mm (MW)	1	
R118	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S05	4-2312-05300	Keyboard Switch 6mm (FM)	1	
R119	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S06	4-2312-05300	Keyboard Switch 6mm (Down)	1	
R120	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1	S07	4-2312-05300	Keyboard Switch 6mm (Up)	1	
R121	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1		131-2-4208-46300	Spacer (L.E.D.)	1	
R122	RD4-7-3251-JM000	Carbon	47kΩ 1/4W ±5%	1					
R123	RH2-2-1102-JZ000	Metal	220Ω 1W ±5%	1					
R125	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1	D01	D00---SLP--173B-	L.E.D., SLP 173 B (Mode)	1	
R129	RF3-3-A251-JH004	Fuse	3.3Ω 1/4W ±5%	1					
R130	RH3-9-0102-JZ000	Metal	39Ω 1W ±5%	1					
R131	RD1-0-2251-JM000	Carbon	1kΩ 1/4W ±5%	1					
R132	RD1-2-2251-JM000	Carbon	1.2kΩ 1/4W ±5%	1	PCB5	141-0-1939-09381	LED P.C.B. Assy	1	
R133	RD1-0-2251-JM000	Carbon	1kΩ 1/4W ±5%	1		4-2262-22291	LED P.C.B.	1	
R134	RD1-2-2251-JM000	Carbon	1.2kΩ 1/4W ±5%	1		131-2-4208-46800	Spacer (L.E.D.)	1	
R135	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R136	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R137	RD1-0-3161-JH000	Carbon	10kΩ 1/6W ±5%	1	D01	D00---SLP--173B-	L.E.D., SLP 173 B (Stereo)	1	
R138	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1	D02	D00---SLP--273B-	L.E.D., SLP 273 B (Tuned)	1	
R139	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R140	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R141	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1					
R142	RD1-0-2251-JM000	Carbon	1kΩ 1/4W ±5%	1	PCB6	141-0-1939-09391	Power Switch P.C.B. Assy	1	
R143	RD1-0-2251-JM000	Carbon	1kΩ 1/4W ±5%	1		4-2262-22301	Power Switch P.C.B.	1	
R160	RD1-0-3251-JM000	Carbon	10kΩ 1/4W ±5%	1	S01	△ 4-2312-03320	Push Switch 1Key (Power)	1	

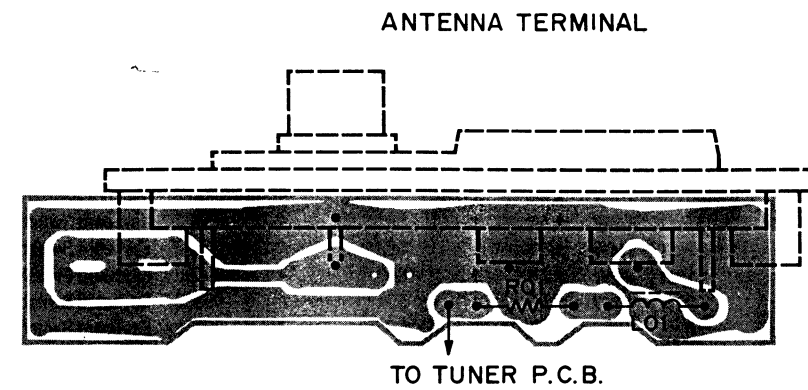
CAPACITOR

C01	CC1-0-3500-ZG00C	Ceramic	0.01 μ F	50V	+80,-20%	1
-----	------------------	---------	--------------	-----	----------	---

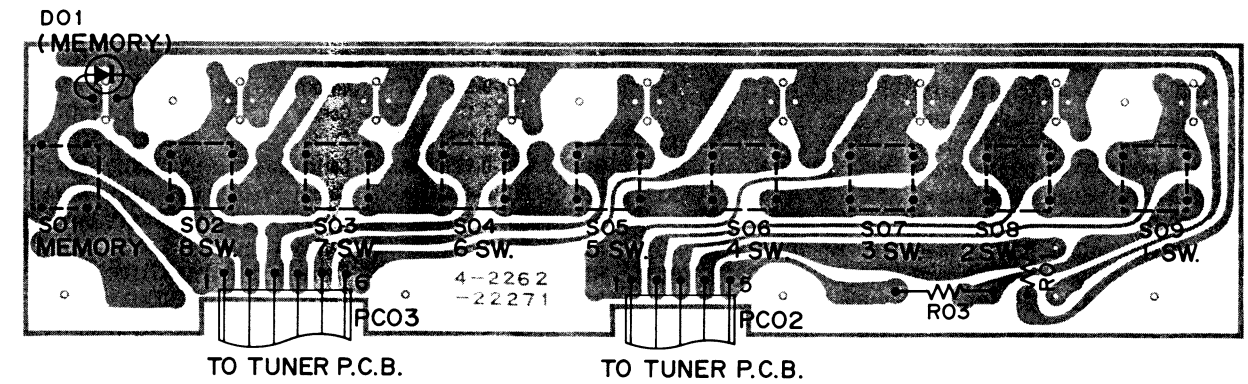
NOTES:

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

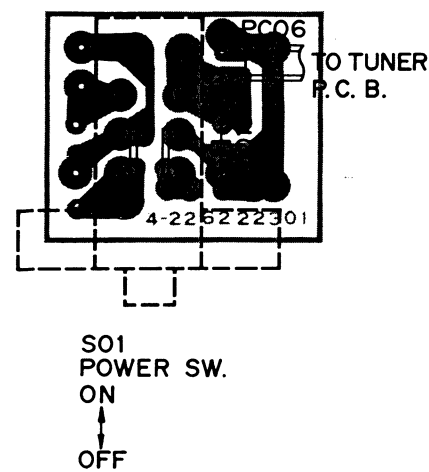
ANTENNA TERMINAL P.C.BOARD



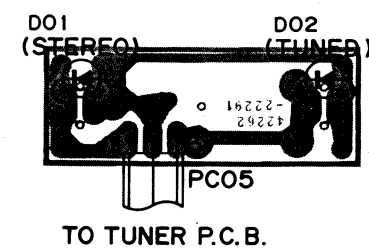
MEMORY SWITCH P.C.BOARD



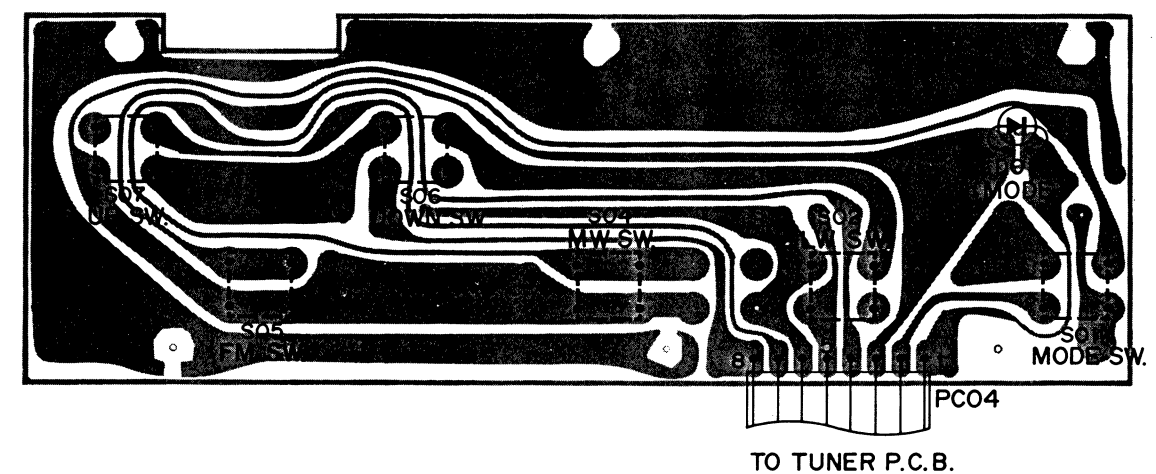
POWER SWITCH P.C.BOARD



LED P.C.BOARD (BOTTOM VIEW)

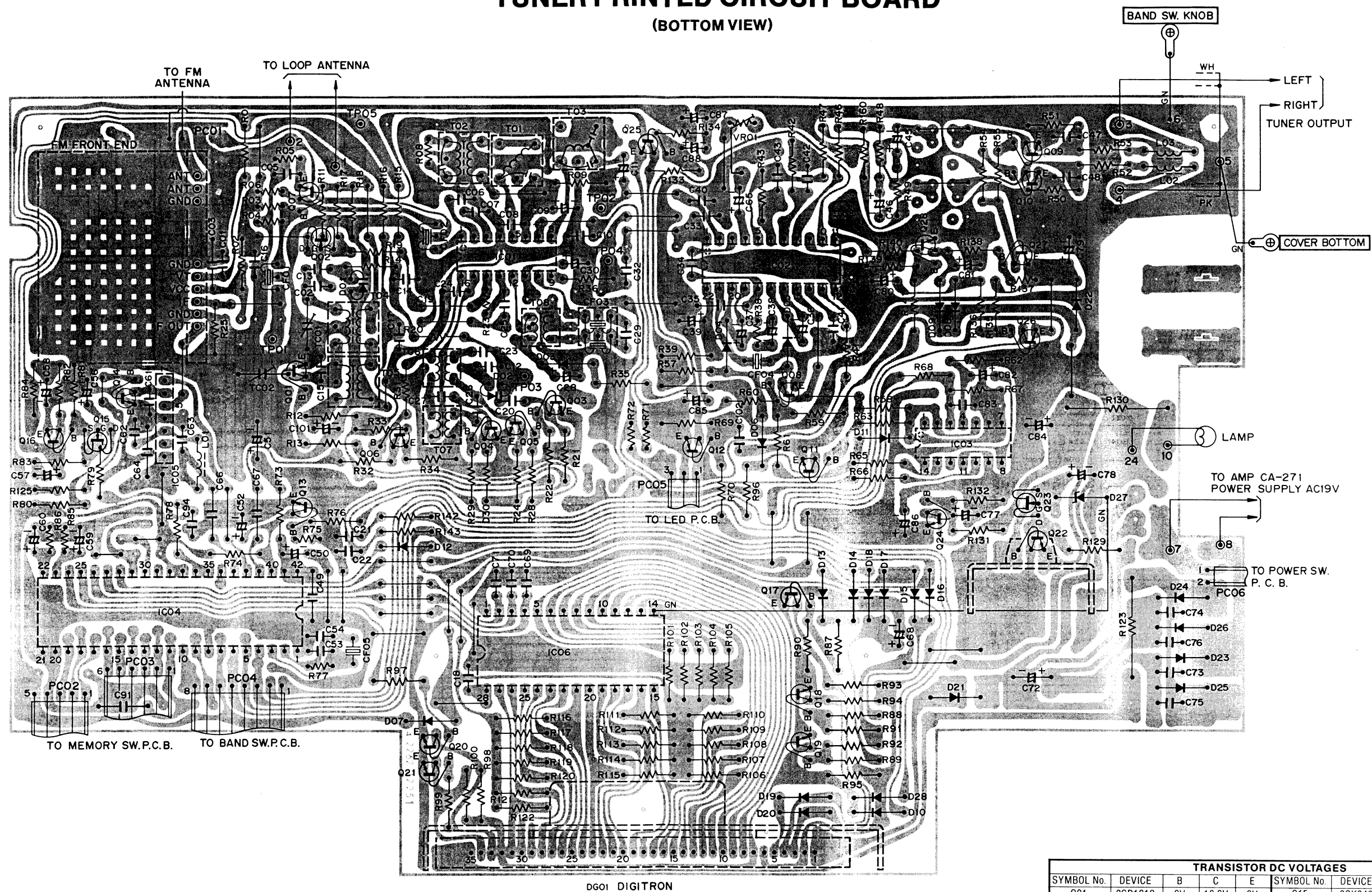


BAND SWITCH P.C.BOARD (BOTTOM VIEW)



TUNER PRINTED CIRCUIT BOARD

(BOTTOM VIEW)

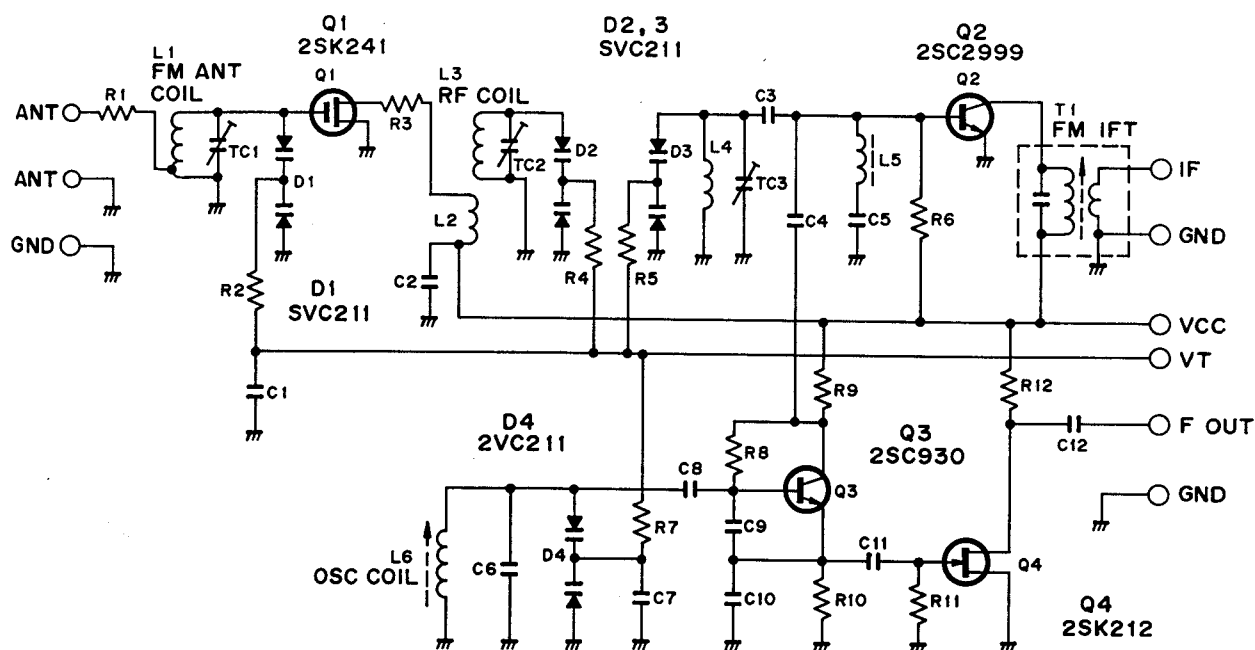


IC PIN NUMBERS DC VOLTAGES																					
SYMBOL No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
IC01	LA 1261	1.4V	1.4V	1.4V	0V	5.9V	5.9V	6.0V	1.7V	1.4V	1.4V	0.7V	4.7V	0V	0V	2.3V	2.3V				
IC02	LA 3400	3.3V	3.3V	3.4V	3.3V	7.0V	3.3V	3.3V	7.0V	3.9V	0V	3.1V	0V	4.8V	5.0V	4.5V	3.1V	6.5V	4.0V	3.1V	4.0V
		21	22																		
		2.3V	10.2V																		
IC03	BU 4013 B	0V	5.4V	0V	0.6V	5.4V	0V	0V	5.5V	0V	6.0V	0V	0V	0V	5.5V						
IC05	TD 6104 P	5.5V	5.1V	4.6V	0V	4.0V	4.0V	1.9V													
IC06	TD 6301 AP	0V	0V	0V	0V	0.7V	19.3V	19.0V	19.0V	18.6V	18.6V	18.6V	19.0V	0.7V	0V	0.7V	0.7V	0.7V	18.2V	18.2V	18.9V
		21	22	23	24	25	26	27	28												
		0.7V	0.7V	0.7V	0.7V	18.0V	18.2V	19.0V	5.5V												

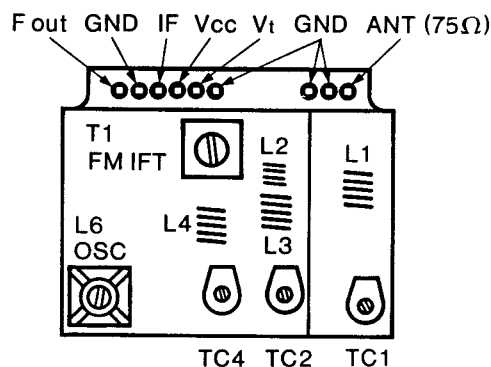
TRANSISTOR DC VOLTAGES											
SYMBOL No.	DEVICE	B	C	E	SYMBOL No.	DEVICE	B	C	E		
Q01	2SD1012	0V	10.6V	0V	Q15	2SK246	0.6V	10.3V	0.6V		
Q02	2SK246	2.7V	12.3V	4.2V	Q16	2SC732	0.6V	1.6V	0V		
Q03	2SC536	0V	10.6V	0V	Q17	2SC536	0.7V	0V	0V		
Q04	2SC536	0V	10.5V	0V	Q18	2SC536	0.6V	0V	0V		
Q05	2SC536	0V	10.5V	0V	Q19	2SC536	0V	20.0V	0V		
Q06	2SC536	2.3V	5.2V	1.7V	Q20	2SC536	0V	16.2V	0V		
Q07	2SC930	2.0V	11.8V	1.2V	Q21	2SC536	0.6V	0V	0V		
Q08	2SC536	0V	4.9V	0V	Q22	2SD330	13.1V	20.0V	12.5V		
Q09,10	2SD1012	0.6V	0V	0V	Q23	2SK246	13.1V	20.0V	13.1V		
Q11	2SC536	0.6V	0V	0V	Q24	2SC536	6.7V	12.5V	6.1V		
Q12	2SA608	0.6V	0V	0.6V	Q25	2SC536	6.1V	12.2V	6.0V		
Q13	2SC536	0V	5.4V	0V	Q26	2SA608	11.5V	0V	11.5V		
Q14	2SC536	0V	4.0V	0V	Q27	2SA608	10.9V	11.5V	11.5V		



FRONT END SCHEMATIC DIAGRAM



No.	Name	Position
Power Switch P.C.B. Assy		
S01	POWER Switch	OFF
Memory Switch P.C.B. Assy		
S01	MEMORY Switch	OFF
S02	PRESET 8 Switch	OFF
S03	PRESET 7 Switch	OFF
S04	PRESET 6 Switch	OFF
S05	PRESET 5 Switch	OFF
S06	PRESET 4 Switch	OFF
S07	PRESET 3 Switch	OFF
S08	PRESET 2 Switch	OFF
S09	PRESET 1 Switch	OFF
Band Switch P.C.B. Assy		
S01	MODE Switch	OFF
S02	LW Switch	OFF
S04	MW Switch	OFF
S05	FM Switch	OFF
S06	DOWN Switch	OFF
S07	UP Switch	OFF



(FRONT END TOP VIEW)

PRODUCT SAFETY NOTICE

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

NOTES:

1. All resistors values are indicated in "ohm" ($K=10^3$, $M=10^6$).
2. All capacitors values are indicated in " μF " ($P=10^{-12}$).
3. All voltages indicated on the schematics are measured under the following conditions.
 - a. Use a V.T.V.M.
 - b. All voltages $\pm 10\%$ with respect to chassis ground

- c. FUNCTION SW: FM ST/MUTE Signal Stereo L.E.D. ON
 - d. The values in brackets show those obtained with FUNCTION SW set to "MW" position.
 - e. AC input at 19 volts 50 Hz
4. This is a basic schematic diagram.

Because Fisher products are subject to continuous improvement, Fisher Corporation reserves the right to make any changes or modifications without notice.